



KADALEKUM KANNUKA

and similar papers at core.ac.uk

(Bounties of the Sea)

PUBLISHED IN THE INTERNATIONAL YEAR OF THE OCEANS

CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY
&
ALL INDIA RADIO



KADALEKUM KANIVUKAL

(Bounties of the Sea)

Farm School Series on marine fisheries
broadcast by All India Radio, Thrissur

Edited by

K. RAVINDRAN

KRISHNA SRINATH

K.K. KUNJIPALU

V. SASIKUMAR

Published by



CENTRAL INSTITUTE OF FISHERIES TECHNOLOGY
Matsyapuri P.O., Cochin - 682 029

&



ALL INDIA RADIO
Ramavarmapuram, Thrissur - 680 631

ISBN 81-901022-0-6

Published by : Dr K. Ravindran, Director, CIFT
and
Station Director, All India Radio, Thrissur

Produced by : Extension, Information &
Statistics Division, CIFT

Associates : Mary Thomas
K. Sobha
K.D. Jos

Cover : G. Mohan

Secretarial : Jaya Das
assistance N.C Shyla

© 1998, Central Institute of Fisheries Technology, Cochin - 682 029
Printed at PAICO, Cochin, S. India

CONTENTS

Foreword	
Preface	
Inaugural message	
1. Indian marine fishing sector - An overview	1
<i>M.K.R. Nair</i>	
2. Marine fish production in Kerala	7
<i>K. Balan</i>	
3. The organic wealth and fish production in the sea - Phytoplankton production	12
<i>C.P. Gopinathan</i>	
4. The organic wealth and fish production in the sea - Zooplankton production	18
<i>K.J. Mathew</i>	
5. Pelagic fish	21
<i>T.M. Yohannan</i>	
6. Demersal finfish resources of India	25
<i>S. Sivakami</i>	
7. Indian marine molluscs	29
<i>K.K. Appukuttan</i>	
8. Deep sea and oceanic resources	34
<i>N.G. Menon</i>	
9. Marine ornamental fish	38
<i>K.G. Sunny</i>	
10. Potential fishing zones in the marine environment	42
<i>V.N. Pillai</i>	
11. Marine fisheries and environment	46
<i>K.S. Purushan</i>	
12. Marine environment and pollution	49
<i>V.K. Pillai</i>	
13. The unexploited marine resources of India	54
<i>P.A. Thomas</i>	
14. Coastal oceanic phenomena and fisheries	58
<i>K.K. Varma</i>	
15. Marine pearl production in India	62
<i>T.S. Velayudhan</i>	
16. Prawn farming	67
<i>K. Asokakumaran Unnithan</i>	

17. Crab and lobster culture	<i>Mary K. Manisseri</i>	71
18. Seaweed culture	<i>P. Kaladharan</i>	76
19. Mixed farming or polyculture	<i>P.N. Radhakrishnan Nair & S.M. Pillai</i>	80
20. Diseases and their control in aquaculture system	<i>K.C. George</i>	84
21. Supplementary feeding in aquaculture	<i>Vijayagopal P.</i>	91
22. Fish nutrition and feed production	<i>K.G. Ramachandran Nair</i>	95
23. Integrated fish farming	<i>L. Krishnan & C.G. Rajendran</i>	98
24. Protection of wooden fishing craft	<i>K. Ravindran</i>	102
25. Different kinds of trawl nets for power fishing	<i>C.P. Verghese</i>	105
26. Low energy fishing techniques	<i>P. George Mathai</i>	111
27. Recent advances in the processing and packaging of fish and fishery products	<i>Jose Joseph</i>	117
28. Hygiene in fish processing	<i>T.S.G. Iyer</i>	124
29. Modern trends in value added fish processing	<i>S. Girija</i>	127
30. Fish in human nutrition	<i>K. Gopakumar</i>	130
31. Economic analysis of marine fishery of Kerala	<i>K.K.P. Panikkar</i>	133
32. Marketing of fish and fishery products	<i>J. Ramesh</i>	138
33. Human resource development in fisheries sector	<i>D.M. Thampy & N.R. Menon</i>	145
34. Safety measures for fishermen	<i>K.C. Udayaprakasan</i>	149
35. Financial assistance to fisheries sector	<i>G. Premkumar</i>	159
Index		163

CONTENTS

Foreword	
Preface	
Inaugural message	
1. Indian marine fishing sector - An overview	1
<i>M.K.R. Nair</i>	
2. Marine fish production in Kerala	7
<i>K. Balan</i>	
3. The organic wealth and fish production in the sea - Phytoplankton production	12
<i>C.P. Gopinathan</i>	
4. The organic wealth and fish production in the sea - Zooplankton production	18
<i>K.J. Mathew</i>	
5. Pelagic fish	21
<i>T.M. Yohannan</i>	
6. Demersal finfish resources of India	25
<i>S. Sivakami</i>	
7. Indian marine molluscs	29
<i>K.K. Appukuttan</i>	
8. Deep sea and oceanic resources	34
<i>N.G. Menon</i>	
9. Marine ornamental fish	38
<i>K.G. Sunny</i>	
10. Potential fishing zones in the marine environment	42
<i>V.N. Pillai</i>	
11. Marine fisheries and environment	46
<i>K.S. Purushan</i>	
12. Marine environment and pollution	49
<i>V.K. Pillai</i>	
13. The unexploited marine resources of India	54
<i>P.A. Thomas</i>	
14. Coastal oceanic phenomena and fisheries	58
<i>K.K. Varma</i>	
15. Marine pearl production in India	62
<i>T.S. Velayudhan</i>	
16. Prawn farming	67
<i>K. Asokakumaran Unnithan</i>	

17. Crab and lobster culture	Mary K. Manisseri	71
18. Seaweed culture	P. Kaladharan	76
19. Mixed farming or polyculture	P.N. Radhakrishnan Nair & S.M. Pillai	80
20. Diseases and their control in aquaculture system	K.C. George	84
21. Supplementary feeding in aquaculture	Vijayagopal P.	91
22. Fish nutrition and feed production	K.G. Ramachandran Nair	95
23. Integrated fish farming	L. Krishnan & C.G. Rajendran	98
24. Protection of wooden fishing craft	K. Ravindran	102
25. Different kinds of trawl nets for power fishing	C.P. Verghese	105
26. Low energy fishing techniques	P. George Mani	111
27. Recent advances in the processing and packaging of fish and fishery products	Jose Joseph	117
28. Hygiene in fish processing	K.G. Iyer	124
29. Modern trends in value added fish processing	S. Girija	127
30. Fish in human nutrition	K. Gopakumar	130
31. Economic analysis of marine fishery of Kerala	K.K.P. Panikkar	133
32. Marketing of fish and fishery products	J. Ramesh	138
33. Human resource development in fisheries sector	D.M. Thampy & N.R. Menon	145
34. Safety measures for fishermen	K.C. Udayaprakasan	149
35. Financial assistance to fisheries sector	G. Premkumar	159
Index		163